

WHAT IS CLAIMED IS:

1. A method for reducing permissiveness of human cells to replication of a human pathogenic Flaviviridae virus predetermined (i) to lack any C-terminal CXXX box; (ii) to lack prenylated viral protein, and (iii) to be replication-dependent on host protein prenylation, the method comprising steps:

(a) contacting human cells subject to infection by the virus with an effective amount of a selective inhibitor of a prenylation enzyme of the cells, wherein the enzyme is selected from the group consisting of an HMG CoA reductase and a prenyltransferase; and

(b) confirming a resultant reduction in permissiveness of the cells to replication of the virus.

2. The method of claim 1, wherein the enzyme is HMG CoA reductase.

3. The method of claim 1, wherein the enzyme is HMG CoA reductase and the inhibitor is selected from the group consisting of: atorvastatin (Lipitor), pravastatin (Pravachol), lovastatin (Mevacor), simvastatin (Zocor), fluvastatin (Lescol) and rosuvastatin calcium (Crestor).

4. The method of claim 1, wherein the enzyme is geranylgeranyl transferase I (GGTase I)

5. The method of claim 1, wherein the enzyme is geranylgeranyl transferase I (GGTase I), and the inhibitor is selected from the group consisting of: GGTI-286, GGTI-298, Massadine, and a Candida albicans GGTase I inhibitor.

6. The method of claim 1, wherein the virus is a hepatitis C virus (HCV).

7. The method of claim 2, wherein the virus is a hepatitis C virus (HCV).

8. The method of claim 3, wherein the virus is a hepatitis C virus (HCV).

9. The method of claim 4, wherein the virus is a hepatitis C virus (HCV).

10. The method of claim 5, wherein the virus is a hepatitis C virus (HCV).

11. The method of claim 1, wherein the virus is a West Nile virus (WNV).

5 12. The method of claim 2, wherein the virus is a West Nile virus (WNV).

13. The method of claim 3, wherein the virus is a West Nile virus (WNV).

14. The method of claim 4, wherein the virus is a West Nile virus (WNV).

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15. The method of claim 5, wherein the virus is a West Nile virus (WNV).